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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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UNISYS CORPORATION			LU, KUEN S	
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DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,146

Applicant(s)

TURBA, THOMAS N.

Examiner

Kuen S Lu

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2167

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments

1. The Action is responsive to the Applicant's Amendments, filed on July 26, 2004.
2. In responding to Applicant's Amendments made to each of the independent claims where new issues, specifically relating to XML document containing data processing service request and the XML document being converted to command language scripts, were introduced, the Examiner has created this Office Action for Final Rejection as shown next. The amended new claims are also addressed in the Office Action.
3. As for the Applicant's Remarks on claim rejections; filed on July 26, 2004, has been fully considered by the Examiner, please see discussion in the section ***Response to Arguments***, following the Office Action.

Claim Objections

4. Claims 6, 11 and 21 are objected to because of the following informalities: the term "publically accessible digital data communication network" is not consistent with "publicly accessible digital data communication network", the one specified in claim 25. The Examiner interprets the term as the one specified in claim 25. Appropriate correction is required.
5. Claim 21 is objected to because of the following informalities: the term "a data base management system" is not consistent with "a database management system" utilized

in other places. The Examiner interprets both terms the same. However, appropriate correction is required for consistency.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chau et al. (U.S. Publication 2002/0123993, hereafter "Chau") and further in view of Crisan et al. (U.S. Publication 2003/0191769, hereafter "Crisan").

As per Claims 1 and 11, Chau teaches "a document containing a plurality of elements formatted in XML (extensible markup language) transferred from said user terminal to said data base management system" at the Abstract and Page 1, [0014] describing the background for the invention of transferring XML documents from the user system to a relational database and at Page 2, [0016] showing XML document has one or more elements or attributes is described.

Chau does not specifically teach that the transferred document contains data processing service request.

However, Crisan teaches XML document containing database service request at Figs. 5-6, elements 62, 63, 51, 68, 37 and 29, and Page 2, [0036], Page 3, [0054]-[0055] by using XML-based and SQL-based form DADX (document access definition extension) file for database service request operation.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Crisan with Chau reference because both references are devoted to XML documents and relational database data manipulation operations and the combined reference would have enabled a complete web-based system to invoke a seamless flow of database data service operations.

Crisan further teaches transferring of XML document to the database management server via a publically accessible digital data communication network at Figs. 6-7 wherein Crisan's internet is the communication network.

The combined reference further teaches the following:

"an XML mapping tree via which the transformation of each of said plurality of elements is defined which permits conversion of said document to said ordered sequence of native command language script" (See Chau: Fig. 10, element 1000 and Page 30, [0760] where a documents object model tree is generated from an XML formatted data access definition and the definition defines a mapping between relational data and one or more XML documents, and Crisan: Fig. 5 and Page 3, [0055] where a sequence of ordered SQL commands is embedded in the DADX, document access definition extension, configuration file); and

"parsing said XML document into an XML mapping tree" (See Chau: Fig. 10, element 1000 and Page 30, [0760] where a documents object model tree is generated from an XML formatted data access definition and the definition defines a mapping between relational data and one or more XML documents).

As per Claims 6 and 16, Chau teaches "an XML document" transferred or transmitted from client to a database management system at the Abstract and Page 1, [0014] describing the background for the invention of transferring or transmitting an XML documents from the user system to a relational database and at Page 2, [0016] showing XML document has one or more elements or attributes is described.

Chau does not specifically teach that the XML document defines or describes a service request defining a database management process.

However, Crisan teaches XML document containing, defining or describing database service request (See Figs. 5-6, elements 62, 63, 51, 68, 37 and 29, and Page 2, [0036], Page 3, [0054]-[0055] wherein Crisan's XML-based and SQL-based form DADX (document access definition extension) file for database service request operation is equivalent to Applicant's XML document containing, defining or describing database service request).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Crisan with Chau reference because both references are devoted to XML documents and relational database data

manipulation operations and the combined reference would have enabled a complete web-based system to invoke a seamless flow of database data service operations.

Crisan further teaches the following:

“a publically accessible digital data communication network” at Fig. 7 where element 77 is the internet for providing public access;

“a database management system having an input format different from XML which involves a native script which is executed by said database management system to honor said service request responsibly coupled to said publically accessible digital data communication network which receives said XML document via said publically accessible digital data communication network” at Figs. 2, 5-6 and 7, and Pages 2-4, [0032], [0055] and [0061] wherein Crisan's internet couples client and database server for providing XML-based and SQL-based form where a sequence of SQL script executed by the database management system to honor the data service request.

The combined reference further teaches “an XML mapping tree responsibly coupled to said database management system which involves said native script which is executed by said database management system to honor said service request” (See Chau: Fig. 10, element 1000 and Page 30, [0760] where a documents object model tree is generated from an XML formatted data access definition and the definition defines a mapping between relational data and one or more XML documents, and Crisan: Fig. 5 and Page 3, [0055] where a sequence of ordered SQL commands, embedded in the document access definition extension configuration file, are executed by the database management to honor the data service request).

As per Claim 21, Chau teaches a user terminal "using an XML message" at the Abstract and Page 1, [0014] describing the background for the invention of transferring or transmitting an XML documents from the user system to a relational database and at Page 2, [0016] showing XML document has one or more elements or attributes is described.

Chau does not specifically teach that a service request is generated as an XML message.

However, Crisan teaches XML document containing, defining or describing database service request (See Figs. 5-6, elements 62, 63, 51, 68, 37 and 29, and Page 2, [0036], Page 3, [0054]-[0055] wherein Crisan's XML-based and SQL-based form DADX (document access definition extension) file for database service request operation is equivalent to Applicant's XML document containing, defining or describing database service request).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Crisan with Chau reference because both references are devoted to XML documents and relational database data manipulation operations and the combined reference would have enabled a complete web-based system to invoke a seamless flow of database data service operations.

Crisan further teaches the following:

"said legacy database management system responsively coupled to said user terminal via a publically accessible digital data communication network which honors said

service request by executing an ordered sequence of command language script" at Figs. 5-7 where the internet provides public access and coupling between user web browser and database management system for executing the sequence of SQL commands;

Crisan further teaches "a conversion facility responsively coupled to said legacy database management system which parses said XML message to produce said ordered sequence of command language script " (See Figs. 5-6 and Page 3, [0055] where a document access definition extension facility with XML-based and SQL-based form converts the embedded commands to a sequence of ordered SQL statements for being executed by the database management to honor the data service request).

As per Claims 2, 8, 14, 18 and 22, Chau teaches "at least one of said plurality of elements further comprises an attribute which is recorded within said XML mapping tree" at Page 5, [0097] and Page 6, [0108]-[0113] where attributes of elements starting from the root of a tree defined by a formal data model is described.

As per Claims 3 and 13, Chau teaches "document is defined by a Document Type Definition (DTD)" at the Abstract, last section where XML data is mapped from the application DTD to the relational database tables and columns using the document access definition.

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As per Claims 4, 7, 12, 17 and 24, Chau teaches “a storage space in which said XML mapping tree is stored for future use” at Page 30, [0760], lines 15-18 and Page 8, [0134] where DAD for mapping XML documents and relational database is created as a file which is a stored object and at Page 33, [0792] where DAD is also stored in database.

As per Claims 5 and 20, Chau teaches “XML mapping tree is displayed on said user terminal in a window” at Page 30, [0760], lines 15-18 and Page 8, [0134] where DAD for mapping XML documents and relational database is created as an XM file, and at Fig. 8, element 802 and Page 29, [0755] where DAD file is displayed.

As per Claims 9, 15, 19 and 25, Chau teaches “publicly accessible digital data communication system further comprises the Internet” at Fig. 1, element 100 and Page 22, [0632] where internet is included in the network architecture.

As per Claims 10, Chau teaches “XML mapping tree is hierarchical” by combining Page 30, [0760] where mapping tree is created as an XML formatted file and Page 8, [0134] where DAD file itself is tree structured document.

As per Claim 23, Chau teaches “conversion facility further comprises an element to source mapping tree” See Figs. 5-6 and Page 3, [0055] where a document access definition extension facility with XML-based and SQL-based form converts the

embedded commands to a sequence of ordered SQL statements for being executed by the database management to honor the data service request).

8. The prior art made of record

A. U.S. Publication 2002/0123993

D. U.S. Publication 2003/0191769

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

B. U.S. Publication 2002/0156811

C. U.S. Publication 2002/0078768

Response to Arguments

9. The Applicants' Remarks/ARGUMENTS, filed on July 26, 2004, argued that Chau et al. (U.S. Publication 2002/0123993) reference teaches creating metadata for fast search of XML document stored as column data and does not anticipate the establishing of interface from XML messages to a database management system.

Applicant's above arguments have been fully considered but they are not persuasive because the non-final Office Action was as drafted for rejecting the claims as originally presented. However, based on the amended claims with new issues specifically relating to XML document containing data processing service request and the XML document being converted to command language scripts as introduced and the newly added claims 21-25, the Examiner has introduced the Crisan et al. (U.S. Publication 2003/0191769) reference for rejecting claims 1-25 under the 35 U.S.C § 103.

10. In light of the forgoing arguments, the U.S.C § 103 rejection for Claims 1-25 are hereby sustained.

Conclusions

11. THIS ACTION IS MADE FINAL.

The Applicant are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to Applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (571) 272-3574 for faster service.

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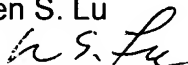
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is 571-272-4114.

The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kuen S. Lu


Patent Examiner

December 17, 2004


Luke Wassum

Primary Examiner

December 17, 2004